

Wednesday, April 27, 2011 dawned like several other days this year: with the sound of thunder. The lightning detector had been racking up some pretty impressive stroke counts all night for storms that were still a couple of hundred miles away. When the storms got close, around daybreak, it sent out a couple of text messages to local people, just as it was supposed to do. The dawn storms weren't severe though. I slept through most of it.

We were forecast to have another round of storms later in the morning, and then the risk of some tornadic storms later in the day. The past couple of overly hyped severe weather risks left me a little dubious as to just how bad it would get. The cool temperatures and copious rainfall early in the day (it was only 63 degrees at 10:00 in the morning) did nothing to ramp up my level of concern. However since late Monday, I'd been passing the word along from the experts that the storms late Wednesday were forecast to be rather ugly and that people should pay attention to things that afternoon.

One thing that caught me eye was that there was a preponderance of positive cloud-to-ground flashes in the storms that were off to the west most of the night and into the morning. This is usually an indicator of severe weather. The midday storms were fairly nasty, with a lot of lightning and thunder. I saw the stroke rate counter get to over 4000 per minute. At the time, I figured that would probably be the highest stroke rate I saw all day. That particular prediction turned out to be laughably wrong.

As the afternoon wore on, it remained mostly cloudy, though we did see just a couple of peeks of sun. The temperature never climbed past the low 70s though. Even though the instability in the atmosphere was increasing by the minute, I knew that we needed somewhat higher temperatures and more sunshine to really ramp up the risk locally of anything really severe. I shudder to think what might have happened here if it had become sunny and our temperatures had pushed up into the 80s.

By mid-afternoon the stroke rate had dropped back, but was still percolating around 1000 per minute from the storms that had already moved through. I ran a couple of errands and then went over to the neighbor's house to fix the inexplicably messed up installation that the Dish Network guy had done on their new high-definition receiver. I stayed over there a bit too long as it turned out. I should have been here updating the tracks of the storms that were starting to pop off to my southwest in North Alabama.

By 3 o'clock there was a distinct signature of a severe storm to the southwest on the lightning detector. I walked back over here a little after 4:00 and was astonished to see that the detector was registering over 3000 strokes a minute. By 4:30 the stroke rate had climbed to nearly 5000. Adding in the noise count (strokes too garbled to be identified with any accuracy) brought the total count per minute up to over 7000. I was starting to become alarmed.

Lightning/2000 was sending out increasingly urgent text messages, using the phrase "severe storm nearby". By 4:45 the stroke count climbed to over 6000 per minute, with the total detection count pushing to over 9000. This was already well beyond anything I'd ever seen before. A few minutes later, I saw the stroke rate counter exceed 10,000 per minute – I didn't know this was possible! The only local TV station I was able to lock (WAAY-TV Channel 31 in Huntsville) was all over the developing storms.

I'd never seen a scarier radar image in my life. The on-air guy was clearly having trouble keeping up with all that was happening. He was using some very scary language, saying that if you live in a mobile home and didn't leave, you were likely to be killed.

I switched briefly back to the Weather Channel and was shocked and a little horrified to find that their tornado condition index had been raised to an unprecedented 10 out of 10 for my area. That meant that there was a 100% chance of a tornado!

Switching back to channel 31 revealed the ugliness of the situation: two large supercell thunderstorms (each currently producing a confirmed, large tornado) were headed directly this way. It was about this time that the weather radio went off. But it wasn't just a tornado warning, it was a "Tornado Emergency Warning"! I had no idea there even was such a thing! By this time, the per minute detection rate had climbed to something like 13,000 per minute. I hit the panic button and called my neighbor across the street. I told him I was scared. He said that he was too. It was about this time his wife arrived home from work and I saw them all pile into her car and leave. I had no idea where they were going but hoped they knew someone nearby with a basement.

I called several people and told them that the situation was worse than anything I'd ever seen before and to take cover. I also called the local grocery store (about a mile south of here) and told them to get everyone to the back of the store, away from the large plate glass windows in the front of the store and told them I'd call later with an all clear, assuming I was still here.

I got on some sandals (in case there was going to be broken glass and debris on the ground), grabbed my keys (with a 16 gigabyte "disaster backup" flash drive on the keychain), my wallet, cell phone and regular phone, turned the volume on the TV way up and cleared a place in the tiny hall closet to hold me and the cats. My big fluffy cat Sam was already in his tornado-safe place, under the corner of a bed away from the windows!

It was about this time that the power started to flicker ominously. A couple of minutes later, the power failed altogether. I have never been so scared of the weather as I was at that moment. I nearly jumped out of my skin when the phone rang! Then I remembered that it was still powered, thanks to a UPS. It was a friend calling from Muscle Shoals. He'd just walked in and was still coming up to speed on the situation.

He pulled up a radar and started giving me a blow-by-blow description of how things were unfolding. I described for him exactly where I was in relation to the landmarks he could see on the radar. The presumed tornado circulation was heading straight this way! I strained to listen, over the sound of the thunder (which was by this time almost continuous) for the telltale sound of steadily increasing wind that would mean that the tornado was bearing down on my house.

He couldn't tell me that the storm was veering away from my location. I just knew this was it! My heart must have been racing as if I'd just climbed a small mountain on my bike. He stayed on the phone with me, and incredibly the portable phone stayed powered for the next 45 minutes.

I risked leaving my cramped closet space (by then packed with pillows) to sneak a peek out the window a couple of times, but all I ever saw was a featureless gray sky. I just

knew that any minute I'd hear that ever-increasing wind and then the sound of my house disintegrating around me. But it never came.

Around 6:00, we were able to deduce that the tornadic storm (one of 9 currently on the ground simultaneously!) was likely to be past my location. I started to remember to breathe normally, told my friend that I needed to call some people locally to give them an all-clear before the phone died, and thanked him profusely for hand-holding me through this terror.

I'd just called people here in town to tell them that the worst was past when I was standing in the kitchen and heard a terrifying sound: it sounded like someone was dropping bombs on the house! I remember thinking that it must be the sound of debris falling out of the sky that had been picked up by the tornado. I expected to look out the window and see a cow dropped on me any second.

I ran to a front-facing window and saw the reason for the horrific sound: it was large hailstones. They were over an inch across – larger than anything I'd ever seen in my life. My first thought was that I'd made a terrible mistake in giving people the all-clear and that the tornado was about to hit. I watched as my car got hit several times by these monstrous chunks of ice, and was just sure that any second, the windshield would shatter. But after just a few seconds, the hail stopped. I waited, almost not daring to breathe, for the roar of the wind.

But it never came. In fact during the whole ordeal, we never had any wind gust here that rose above what I consider to be a “normal” thunderstorm wind gust. There wasn't even a twig or branch that came down here.

It was about this time that my neighbor across the street called. I was greatly relieved to find that they were all right. They'd gone to a friend's house a couple of miles south of town to cower in the basement (a much better cowering place, in my opinion, than the closet I'd cowered in!). He was describing the scene to me there, out in the country. The tornado had apparently gone very close to where he was. I told him my phone was likely to die soon. The last thing I heard from him before the UPS died was “Oh would you look at that... oh shit!” I thought maybe the tornado was still ongoing and that this was the last I'd ever hear from him!

Being the Weather Service's co-op observer here in Huntland, I knew that I needed to somehow get the report of hail to them. But their number wasn't in the cell phone and I couldn't for the life of me remember it. I did however think of the number for the newsroom of one of the Huntsville stations, so I called it, thinking I probably wouldn't be able to get through. But it started ringing, and a few seconds later someone answered. I told him who I was and asked him to please relay my observation of the large hail to the National Weather Service office in Huntsville. I asked him how bad things were. He told me that it was really bad. He said the town of Phil Campbell was gone. Those were his exact words. It sent a chill up my spine. He said that there were sure to be dozens of dead in North Alabama. I had a sick feeling. Imagine how sick I'd have felt if I'd known the true extent of the disaster.

After things started to calm down a bit, I got in my car and tried to get out of the neighborhood to see what I could find in the way of damage. The normal way out of the

neighborhood was blocked by a single tree that had fallen across the street. The parallel street that leads out of the neighborhood was flooded by what's usually a tiny creek that had grown into a monstrous torrent. I got a few pictures and then backtracked to the four-lane highway that borders the neighborhood on the other side.

I drove down to the turnoff to Main Street and was astonished to find water flowing across the street. Luckily it wasn't deep at all, and I drove slowly through it with no problems. I reached the grocery store, about a mile along Main Street as you head into Huntland. I was relieved to find that there appeared to be no damage there, but then looked across the street to see two large trees down on the house of my friend Linda, who's the assistant manager at the Piggly Wiggly. Closer inspection revealed that the trees appeared to have only taken out the porch – the house proper seemed unscathed. I found out later that the only part of the house that was touched was, unfortunately, the corner of the house where the electricity came in.

I saw lots of flashing blue lights further up Main Street, and assumed the worst – that Huntland proper had been hit by the tornado. While parked taking pictures, I ran into a photographer from Fox 17 in Nashville. He described the scenes he'd seen as he drove from I-24 to Huntland. He said there was debris everywhere. I was wondering just how bad this thing had gotten, and if we'd have power again anytime soon.

After returning to the house, I had to comfort my two cats... they were a little rattled too! I gathered up all the flashlights I had, including a nifty rechargeable fluorescent light that runs off a 19.2 volt battery that can be interchanged with some power tools.

Thank God for cell phones! We're in a poorly-served area for cell service, but incredibly, I had a signal and was able to get in touch with some friends in Huntsville and verify that they were OK, though they had no power. Oddly, I had to leave a message on one friend's phone that lives in the Huntsville area. I remember thinking how cool it was that he had power. I didn't know at the time that his answering machine and phone was running off a UPS.

He called me back later that evening after it had gotten dark. And when I say it got dark, I mean that it got very dark. Nobody for miles around had any power. He filled me in on what he had been able to find out (his computer was also on a battery backup at that time). The news was bad and getting worse by the minute. I asked him to relay a couple of messages via email while he still had a computer, sending my cell number to them. Suddenly we were cut off! I tried to call him back but it just rang and rang. I found out later that he'd, incredibly, lost his land line.

I was astonished a few minutes later to receive a call from my friend Tim in New Zealand. He'd been watching the live stream from one of the Huntsville television stations and was very worried that I'd been blown away. He knew far more about what was going on than I did. In fact, he was the best source of news I had that entire dark evening. The situation was far worse than anything I could have imagined. But the full extent of the disaster still wasn't known at that time.

I went out to the car to listen to the radio to see what I could find out. About that time, the rainfall intensity started to pick up, with a lot of lightning and thunder to go with it. A couple of the stations I was able to pick up were simulcasting the coverage from

Huntsville television stations. I was horrified to learn that we were under a tornado warning from the storm that was raging outside the car! Among the other stunning news I heard was the seemingly impossible: the entire city of Huntsville and in fact its entire county had been unplugged from the power grid by the Tennessee Valley Authority. All of the high voltage lines leading to that area were gone, blown down by one or more tornadoes. I found out later that night that the mayor of Huntsville had announced that it would be 4 or 5 days before power was restored to the city. It continued to rain heavily for a while as I sat in the car. I found out a bit later that we'd recorded over 5 inches of rain that day... a record for the date, and the third rainiest day I've recorded here in 22 years. That day's rain pushed April's total to over 10 inches, making it the third wettest month I've seen here. On the heels of March's fourth wettest total (also over 10 inches), I figured that our drought conditions were probably over for a while.

I finally decided that the power wasn't coming back anytime soon and opened a pack of tuna. My dinner that night was tuna (which the cats appreciated), tortilla chips, and baked beans from a can. While I was wolfing down this feast, my neighbor across the street knocked at the front door. It nearly scared me to death! He filled me in on his experience – he'd apparently seen the tornado destroy a couple of structures. He said that he and his daughter were going out to the stricken area and asked if I wanted to go with them. I told him to give me a few minutes and I'd be right over.

We carefully made our way out into the country, just a couple of miles south of here. We rounded a corner and he said, "Debris!" Shining our powerful flashlights out into the field aside the road revealed large chunks of metal lying in the field. It was a surreal, ghastly sight.

We drove around for at least an hour, seeing sights that I never hope to see again... houses, barns, even a chicken house, all ravaged by the wind. Water was flowing across the roads in several places. We simply weren't able to get past it in some cases. The strangest sight I saw that night was light coming from a television set in a house surrounded by downed trees and debris. They evidently had the foresight to purchase a generator.

We made our way back towards town. As we got into Huntland, we were amazed to see that the streetlights were on, at least in one part of town. Imagine our delight when we got back here to find that the power was back on!

After straightening up a bit and washing up, I plopped myself down in my chair and watched the Weather Channel for the next 3 hours. Every few minutes, there would be new video. Each was more hair-raising than the last. As the scope of the catastrophe started to come into focus, I felt increasingly numb.

The next day, I went out to the stricken area near town and did my best to document the types of damage, and to photograph the scenes. I sent my observations and photos to the National Weather Service in Huntsville. They pretty much had their hands full surveying all the damage in North Alabama... I figured that they wouldn't be able to get up here to do a proper survey for at least a couple of days. A team from the Weather Service in Huntsville did make it up here on Friday. The official report I read echoed the types of damage I'd found. For the most part, the damage done by our tornado was limited to EF-2, however one house they saw suffered what they termed "low end EF-3" damage.

As I made my way through Huntland, I was astonished to find that our little town had been besieged by a small army of refugees from the Huntsville area. Lines at each of the three gas stations were longer by far than any I'd ever seen here. Police were directing traffic, trying to keep the beleaguered refugees from blocking traffic on the main roads. The inside of our local Piggly Wiggly looked a bit like it had actually been hit by a tornado. Entire shelves were empty. Had I tried to buy any kind of non-perishable food, paper plates, charcoal, aluminum foil, or any of a large array of items, I would have been out of luck. I found out later that the stores in Winchester (15 miles further up the road from Huntsville) had been cleaned out pretty well also. Even Tullahoma (another 15 miles further on) experienced a tide of people from North Alabama. The scene in Fayetteville (the closest Tennessee city to Huntsville, 20 miles west of here) was apparently even more chaotic.

I hope I never see the lightning detector again do the things it did that day. But it performed beautifully under extreme conditions, doing everything I asked of it. People got automatic warnings, well ahead of the storm, and Lightning/2000 kept on ticking under a heavier load than I had ever seen, at least up to the point where the battery backup finally ran out of juice.

I've uploaded a ZIP file containing the day's archive to <http://www.aninoquisi.com/20110427.zip>

If you play it back, you will see that the stroke counts are lower than what I saw with my own eyes at the time. I later found out that the software wasn't writing several thousand strokes each minute to the archive file. This was because those strokes started out as "noises" but were later re-examined and determined to be valid strokes. Because I had the option set to not write noises to the archive file, these recovered noises didn't get written out. I've since corrected this flaw in the software. If there's a tiny positive note in all this, I can take away the fact that the software held up under a load far in excess of anything I ever anticipated – a detection rate that exceeded 16,000 per minute.

If I live to be a hundred, I'll never be able to forget the events of April 27, 2011. Some images (like the incredible video of the massive tornado that laid waste to Tuscaloosa) are seared into my memory. I've never felt such palpable terror as I felt that afternoon. But we were lucky here. Many thousands of others weren't.

Mark Mears
May 1, 2011